



**Testimony before the
Committee on International Relations,
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Hearing on**

**The Role of the Western Hemisphere in
Fostering U.S. Energy Security**

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Statement by**

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Testimony before the Committee on International Relations, Subcommittee on the Western Hemisphere, on “Western Hemisphere Energy Security.”

The Role of the Western Hemisphere in Fostering U.S Energy Security

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I would like to begin my presentation with a few facts on the importance of the Western Hemisphere in supplying energy resources, especially crude oil and natural gas, to the United States. Imports of crude oil from hemispheric countries (Canada, Latin America, and the Caribbean) amounted to 50 percent of total U.S. crude oil imports in 2004, the latest year for which annual figures are available. Over and above this, the United States imports significant amounts of oil products from countries in the Western Hemisphere, as can be seen in the tables at the end of this presentation. With this much energy resource reliance on the hemisphere, it is remarkable that the U.S. government has so thoroughly ignored the hemisphere in its foreign policy.¹

Imports of natural gas, including liquefied natural gas (LNG), from hemispheric countries in 2004 were 95.5 percent of total gas imports that year. The U.S. electric energy grid also involves trade in electricity with both Mexico, and especially with Canada.

The five most important foreign suppliers of crude oil to the United States in 2004 were Canada, Mexico, Saudi Arabia, Venezuela, and Nigeria, in that order. Three of the five

¹ It was noted by hemispheric governments, and was the theme of much comment in hemispheric media, that President Bush’s state-of-the-union address ignored the Western Hemisphere, even when the president discussed energy.

* *All views expressed in this statement are solely those of the author.*

are in the Western Hemisphere. Canada, in 2004, supplied 85 percent of the natural gas imported by the United States. Our most important supplier of LNG was Trinidad & Tobago.

The appendix to this presentation contains detailed data on the role of the Western Hemisphere in supplying energy resources to the United States.

The State of Energy Cooperation in the Western Hemisphere

I will devote the rest of this presentation to some key analytical issues related to energy cooperation in the Western Hemisphere and to political problems that impede the extent of cooperation that would enhance hemispheric energy security. The material I am presenting today will be amplified later this year, in the autumn I hope, when the Center for Strategic and International Studies (CSIS) publishes a study now in progress there on energy cooperation in the Western Hemisphere. The study will have chapters on the energy and political situations in 11 hemispheric countries that are producers of oil and/or gas (Argentina, Bolivia, Brazil, Canada, Colombia, Ecuador, Mexico, Peru, Trinidad & Tobago, the United States, and Venezuela), as well as a chapter on cooperation among the three countries of North America, plus material on the energy infrastructure in the hemisphere, a comparative presentation of regulatory procedures and issues, and a discussion of the roles of China and India in seeking energy sources in the hemisphere. The book will also contain educated estimates on which hemispheric countries will be important oil and gas producers in 2025.

The most significant country energy problem from the U.S. vantage is Venezuela because of its large oil and gas endowment coupled with the animosity between its president, Hugo Chávez, and the United States. Venezuela is producing less oil today than it did when Chávez became president in 1999 because of the sacking of key personnel in the state-owned

energy company, Petroleos de Venezuela, S.A. (Pedevesa). Venezuela is providing oil at discounted prices to Caribbean countries, including Cuba, and Chávez is using this generosity to organize countries in the Caribbean, and elsewhere in Latin America, against the United States. From time to time he threatens to cut off oil exports to the United States, but it is unlikely that he can do this in the near future and find alternative markets where Venezuela's heavy oil can be refined. Venezuela is raising the government take on oil concessions to private companies, including U.S. companies, but foreign investment continues because operating in Venezuela is still profitable and most companies are looking to the long term to a Venezuela under different leadership. Venezuela, under its president, evidently is not a country interested in promoting hemispheric energy cooperation that includes the United States.

Mexico is friendly toward the United States and wishes to cooperate, but the problem there is the inability to fashion a policy that facilitates cooperation, or even a policy that takes into account Mexico's own medium- and long-term oil and gas needs. Because of insufficient tax collection to meet the needs of the federal government's outlays, about one-third of fiscal expenditures come from taxes on the gross revenues of Petróleos Mexicanos (Pemex), the government oil monopoly. Consequently, despite high oil prices, Pemex in recent years has had a net loss in its accounts each year. The company is already borrowed to the hilt. The Mexican constitution and regulations do not permit private equity or risk investment in oil and gas. As a result, there has been inadequate exploration for oil and gas, and hence little prospect for increases in output, absent some lucky find. It is revealing to look at a map showing deep-water drilling in the U.S. and Mexican areas of the Gulf of Mexico. The U.S. side is covered with dots showing where drilling has taken place, whereas the Mexican side is almost devoid of dots. At current rates of production, if there are no important new

discoveries, Mexico will run out of oil in about 11 to 12 years. In addition, Mexico is now a large importer of natural gas and refined products, like gasoline. The unwillingness to allow private risk contracts is deeply rooted in Mexican history and hard to change, perhaps impossible to change during the current presidential election year. It has also proved to be near impossible to raise more tax revenue. A valid question to ask is whether Mexico can alter the politics connected with either private investment and/or tax collections to head off an energy collapse, or whether the country will act only after the crisis has erupted.

Canada is the largest oil and gas exporter to the United States; in 2004, Canada supplied 16 percent of U.S. oil imports and, as noted earlier, 85 percent of U.S. gas imports. Of the big three hemispheric oil suppliers to the United States, Canada is by far the most reliable. Much of Canada's oil production now comes from the oil sands in Alberta, and if past increases in oil sands output is any guide, Canada's oil production future should be comforting from the viewpoint of U.S. energy security. However, future production from oil sands depends on the development of efficient technologies for in situ production to extract bitumen that is far below the surface (as contrasted with mining operations to extract the bitumen closer to the surface), dealing with major environmental problems of water usage and air emissions, and finding substitutes for natural gas to heat the bitumen enough so that it can flow and be recovered and upgraded. Projected investments in oil sands to meet these needs are huge, and are likely to be made. There is no indication in any of the three North American countries that output of natural gas will be augmented enough to meet the needs of the region, which is why much attention is being given to infrastructure needs to import LNG from outside the region.

Hemispheric energy security must deal not only with U.S. and North American security, but the security of supplies for Latin America and Caribbean (LAC) countries as well. I will touch only briefly on LAC country issues in this written presentation.

Bolivia has large proven reserves of natural gas (49 trillion cubic feet), but the political situation in the country makes it an uncertain supplier. Natural gas exports from Bolivia now go to Brazil and Argentina; the Brazilian national oil company, Petrobrás, is a large investor in Bolivia and Petrobrás has indicated that it is ready to invest further if certain understandings are reached. Bolivia has refused to consider a gas pipeline to a Pacific Ocean port in Chile because of lingering animosity over Bolivia's loss of territorial access to the sea more than 100 years ago. Bolivia's reliability as a supplier depends heavily on the flexibility that Evo Morales, the new president, has to meet the gas needs of neighboring countries, while at the same time fulfilling the nationalist demands of the voters who elected him into office.

Trinidad & Tobago has followed a consistent policy over decades in developing its energy resources, particularly natural gas, and has become the leading supplier of LNG to the United States.

Brazil is not now a major exporter of either oil or gas, and is unlikely to be one in the medium term because of the vast size of the internal market, but considerable exploration and development is taking place. What appear to be major natural gas finds in deep waters in the Santos Basin, off São Paulo state, are likely to reduce the need for gas imports over the next decade. Petrobras, the state-owned oil and gas company has developed considerable proficiency in deep-water drilling. There is also considerable foreign investment in oil and gas in Brazil, and this generally takes the form of joint ventures with Petrobras. Those Mexican officials who believe that private investment will be needed in the Mexican oil and

gas industry to head off an energy crisis tend to point to Petrobras as a model that Pemex might emulate in the future.

Development of the oil and gas industry is held back in Colombia by the long-standing guerrilla movements there, including the targeting by guerrillas of oil and gas pipelines.

The reliability of the oil sector in Ecuador has been impeded by political insecurity; for example, martial law was imposed just last week. The oil and gas situation in Peru is much more favorable, and the Camisea project there is proceeding smoothly. There are plans for shipping LNG from Peru to the west coasts of Mexico and the United States over the next few years. Argentina, which has large natural gas reserves (proven reserves are 27 trillion cubic feet) , is not now meeting its potential largely because investment was impeded for a long period when sales prices by producers were frozen in depreciated pesos and consumer prices were subsidized as a way for the administration to gain political popularity. Indeed, Argentina felt it necessary to break a long-term contract to supply natural gas to Chile in order to satisfy domestic demand.

Bolivia, as noted above, refuses to sell natural gas to Chile and this, combined with the Argentine cutoff, puts Chile in a bind to obtain secure supplies of natural gas. Some natural gas may come from Peru, but this is not certain, and Chile may fall back on developing the infrastructure to import LNG from Asia. The inability of Chile to be able to rely on its neighbors to obtain natural gas highlights the uncertainty of cooperation in energy matters in the southern area of South America. The political problems are more difficult to overcome than the technical ones.

Conclusion

The foregoing discussion does not deal with the U.S. energy situation or policy to overcome current and projected supply problems. My purpose in this presentation is to look at the situation in the rest of the hemisphere and how this may affect U.S. and hemispheric energy security. Part of the reason for my lack of analysis of the U.S. energy situation is that this is widely available from other sources; and also because I do not know what form U.S. energy policy will take in light of President Bush's state-of-the-union address. My purpose in this presentation is to look at the situation in the rest of the hemisphere and how this may affect U.S. and hemispheric energy security.

The main conclusion I wish to leave is that the hemisphere would benefit greatly if there were energy cooperation from Canada in the north to Argentina in the south. The impediments to this cooperation are more political than they are technical, although there are considerable financial and technical issues that must be resolved. The United States, I believe, can help in dealing with both the political and technical impediments to hemispheric energy cooperation. To play its proper role, the U.S. government must:

- Give higher priority than is now the case to the hemisphere generally, and with respect to energy in particular;
- Take into account hemispheric capacities and aspirations in developing its own energy policies; and
- Recognize that there will be no U.S. energy security if this security is lacking elsewhere in the hemisphere.

U.S. COAL IMPORTS 2004		
Countries	Short Tons	Percentage of imports
Colombia	16,661,238	61.07
Venezuela	4,435,630	16.25
Canada	2,877,616	10.54
Aruba	10,852	0.039
Paraguay	590	0.002
Mexico	390	0.0014
Dominican Republic	122	0.0004
Western Hemisphere	23,986,357	87.92
Africa	33,809	0.0001
Europe	634,703	2.32
Asia, Oceana, and Australia	2,625,135	9.62
World Total	27,280,004	100

Source: Energy Information Administration (EIA).

U.S. CRUDE OIL IMPORTS 2004		
Countries	Thousand Barrels	Percentage of imports
Canada	591,489	16
Mexico	585,023	15.84
Venezuela	474,531	12.85
Ecuador	84,937	2.3
Colombia	52,049	1.4
Argentina	21,499	0.58
Brazil	18,733	0.50
Trinidad and Tobago	18,027	0.48
Guatemala	6,699	0.18
Peru	383	0.01
Bolivia	311	0.008
Western Hemisphere	1,853,681	50.20
Africa	705,714	19.11
Europe	198,389	5.37
Asia, Oceana, and Australia	50,333	1.36

Middle East	883,946	23.94
World Total	3,692,063	100

Source: Energy Information Administration (EIA).

U.S. NATURAL GAS IMPORTS 2004

Countries	Million Cubic Feet	Percentage of imports
Canada	3,606,543	85
Trinidad and Tobago	462,100	11
Western Hemisphere	4,068,643	95.54
Middle East	21,266	0.5
Africa	132,161	3.1
Asia, Oceania, and Australia	34,989	0.82
Rest of the World	1,500	0.035
World Total	4,258,558	100

Source: Energy Information Administration (EIA).

U.S. CRUDE OIL AND PETROLEUM PRODUCTS IMPORTS 2004		
Countries	Thousand Barrels	Percentage of imports
Canada	782,598	16.26
Mexico	609,225	12.66
Venezuela	568,944	11.82
Virgin Islands	120,860	2.51
Ecuador	89,640	1.86
Colombia	64,413	1.34
Brazil	38,052	0.79
Argentina	35,536	0.73
Trinidad and Tobago	32,116	0.667
Bahamas	13,916	0.29
Netherlands Antilles	10,641	0.22
Guatemala	6,699	0.14
Peru	6,672	0.138
Chile	2,766	0.057
Uruguay	2,064	0.043
Jamaica	723	0.015
Costa Rica	491	0.01
Bolivia	311	0.008
El Salvador	128	0.002
Western Hemisphere	2,385,795	49.59
Middle East	922,118	19.16
Africa	841,697	17.49
Asia, Oceania, and Australia	100,568	2.09
Europe	534,910	11.12
Rest of the World	26,016	0.54
World Total	4,811,104	100

Source: Energy Information Administration (EIA).